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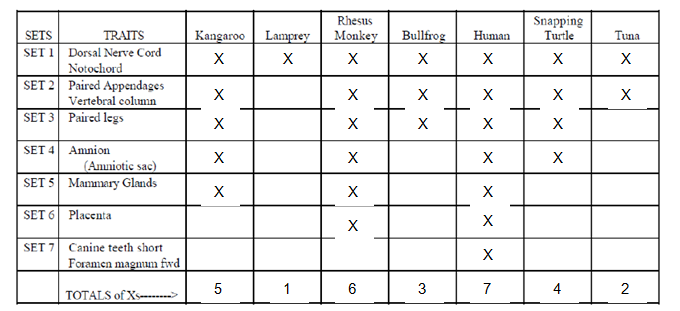
**AP Biology: Unit 2, DBA #2 Review**

Ms. OK, 2014-2015

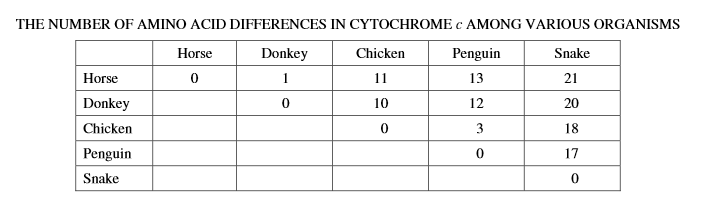
**Objectives Assessed:** Topic 2 (Classification and Biodiversity), Learning Targets E-H

***Practice Questions:*** *Answer the following questions thoroughly and accurately in preparation for your Daily Biology Assessment.*

1. Based on the morphological data in the table below, draw a phylogenetic tree that reflects the evolutionary relationships of the organisms.

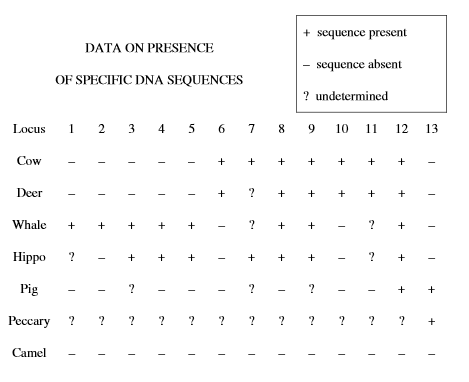
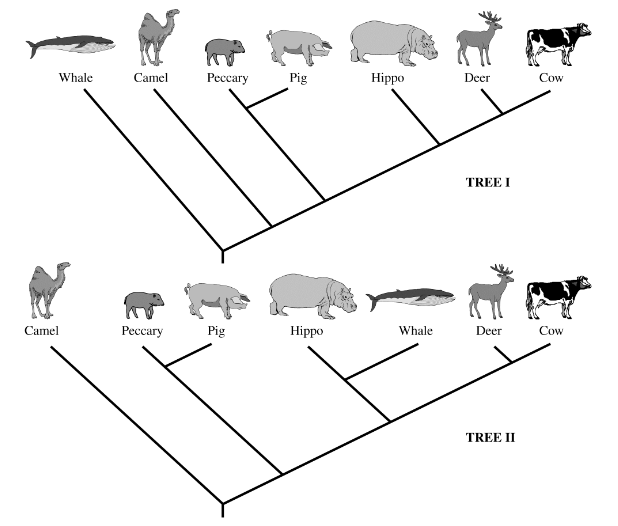


2. Based on the molecular sequence data in the table below, draw a phylogenetic tree that reflects the evolutionary relationships of the organisms based on the differences in their cytochrome c amino-acid sequences.



3. Describe two pieces of evidence that support the claim that “all living things evolved from a single common ancestor.” Directly explain HOW the pieces of evidence support this claim.

4. Based on the principle of parsimony (the simplest explanation is the best) and the genomic information in the table shown, identify which tree is the best representation of the evolutionary relationship of these animals, and justify your answer.

*Note: You should try to identify sets of organisms that should be very close to each other on the cladogram (i.e. which organisms are most closely related?) and any organisms that should be far apart from the others on the cladogram (i.e. which organism is least closely related to the others?)*